

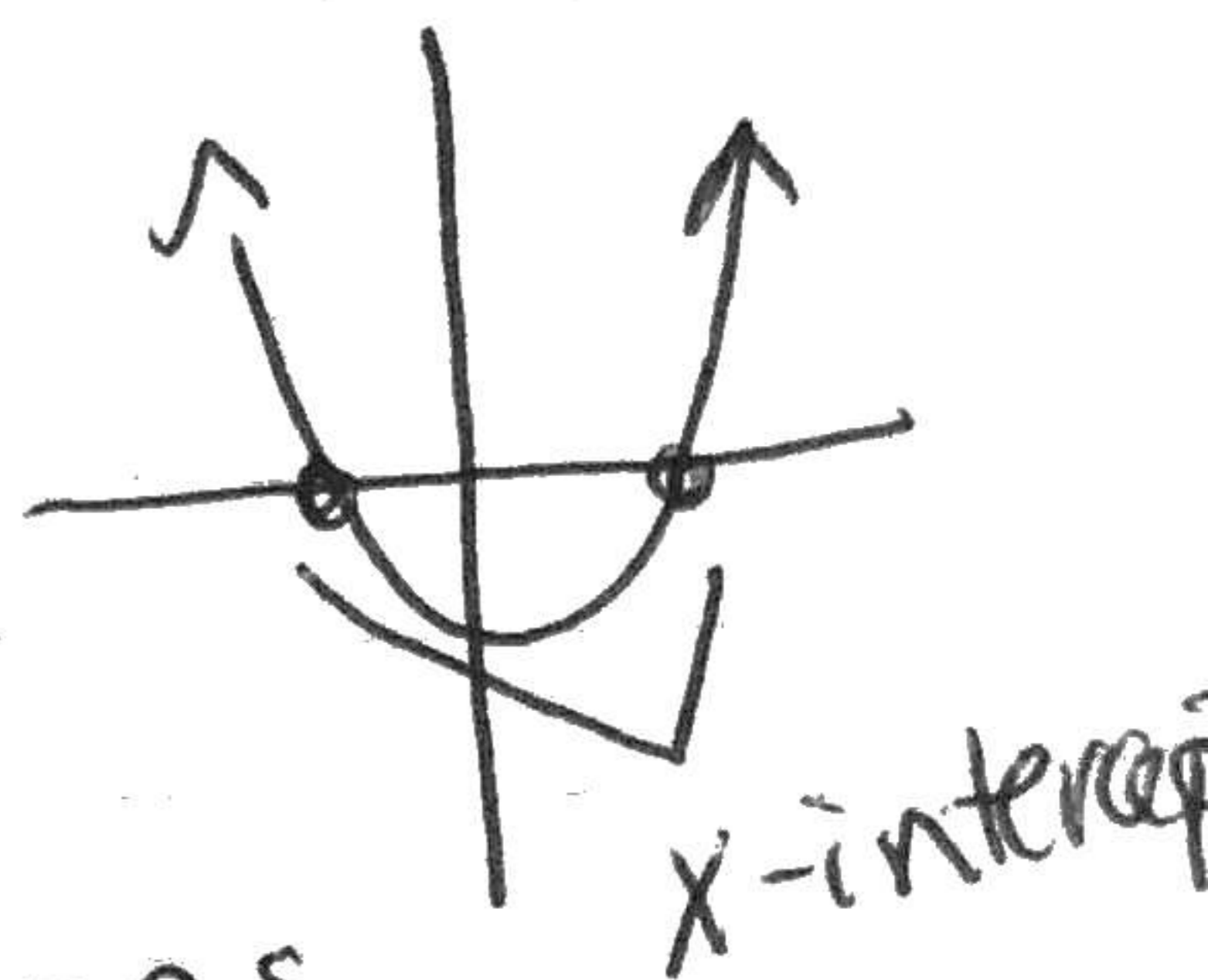
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AA60

How do I factor Quadratic Equations?

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$$y = ax^2 + bx + c$$

$$0 = ax^2 + bx + c$$



Quadratic Equations

- at most two answers (x-intercepts)

Ex 1: $x^2 + 9x + 14 = 0$

| | | |
|---|-------|------|
| x | x^2 | $7x$ |
| 2 | $2x$ | 14 |

x 7

$$\begin{array}{r} 14x^2 \\ \times 2x \\ \hline 9x \\ + \\ 7x \end{array}$$

$$(x+2)(x+7)$$

Ex 2: $x^2 - 15x + 50 = 0$

| | | |
|----|-------|--------|
| x | x^2 | $-10x$ |
| -5 | $-5x$ | 50 |

x -10

$$\begin{array}{r} 50x^2 \\ \times -10x \\ \hline -15x \\ \times -5x \end{array}$$

$$(x-5)(x-10)$$